



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/054,188

01/22/2002

Mark Gibson

476-2087

4449

23644 7590 04/13/2007
BARNES & THORNBURG LLP
P.O. BOX 2786
CHICAGO, IL 60690-2786

EXAMINER

MATTIS, JASON E

ART UNIT

PAPER NUMBER

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/054,188

Applicant(s)

GIBSON ET AL.

Examiner

Jason E. Mattis

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment filed 2/1/07. Claims 11 and 18 have been cancelled. Claims 1-10 and 12-17 are currently pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10 and 12-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Mauger (U.S. Pat. 6522627 B1).

With respect to claims 1, 12, and 17, Mauger discloses a network, node, and method for setting up a communications session on a label switched path encapsulated within an existing label switched path between a first and second node (See the abstract, column 7 lines 1-23, column 7 line 64 to column 8 line 23, and Figures 5B-C and 8 of Mauger for reference to a method of setting up MPLS tunnels through existing MPLS tunnels between host nodes of user A and user B, which

Art Unit: 2616

are first and second nodes). Mauger also discloses sending a path set up message from the first node to the second node via intermediate nodes that incorporates an explicit route object containing a tunnel identifier of the existing label switched path and an extended tunnel identifier that together specify the label switched path for the communications session **(See column 7 line 64 to column 8 line 23 and Figures 8 and 8A of Mauger for reference to the host node of user A sending a path set up message via intermediate to the host node of user B with the path set up message including an identifier of a tunnel already established through network N2, which is a tunnel identifier of the existing label switched path, as well as an identifier of the other nodes to be included in the new tunnel such as node S2, which is an extended tunnel identifier, with both identifiers specifying an explicit route and label switched path for a communications session between user A and user B).** The intermediate nodes of Mauger must inherently store the tunnel identifier of the existing label switched path since the nodes must use the tunnel identifier to determine how to correctly forward the packet to the next node in the existing tunnel.

With respect to claim 8, Mauger discloses a method of reserving a label switched path nested within an existing label switched path to establish a communications session between a first and second node in an MPLS communications network **(See the abstract, column 7 lines 1-23, column 7 line 64 to column 8 line 23, and Figures 5B-C and 8 of Mauger for reference to a method of setting up nested MPLS tunnels through existing MPLS tunnels between host nodes of user A and user B, which are first and second nodes of an MPLS network).** Mauger

Art Unit: 2616

also discloses sending a path set up message from the first node to the second node via intermediate nodes with the message incorporating an explicit route object containing a tunnel identifier of the existing label switched path and an extended tunnel identifier that together specify the label switched path for the communications session **(See column 7 line 64 to column 8 line 23 and Figures 8 and 8A of Mauger for reference to the host node of user A sending a path set up message to the host node of user B with the path set up message including an identifier of a tunnel already established through network N2, which is a tunnel identifier of the existing label switched path, as well as an identifier of the other nodes to be included in the new tunnel such as node S2, which is an extended tunnel identifier, with both identifiers specifying an explicit route and label switched path for a communications session between user A and user B).** The intermediate nodes of Mauger must inherently store the tunnel identifier of the existing label switched path since the nodes must use the tunnel identifier to determine how to correctly forward the packet to the next node in the existing tunnel.

With respect to claim 9, Mauger discloses a method of setting up a communications session on a label switched path encapsulated within an existing label switched path between a first and second node via intermediate nodes with the first and second nodes being disposed at respective ends of the existing label switched path **(See the abstract, column 7 lines 1-23, column 7 line 64 to column 8 line 23, and Figures 5B-C and 8 of Mauger for reference to a method of setting up MPLS tunnels through existing MPLS tunnels between host nodes of user A and user B,**

Art Unit: 2616

which are first and second nodes). Mauger also discloses at the first node, defining a new path state and sending a path set up message from the first node to the second node that incorporates an explicit route object containing a tunnel identifier of the existing label switched path and an extended tunnel identifier that together specify the label switched path for the communications session **(See column 7 line 64 to column 8 line 23 and Figures 8 and 8A of Mauger for reference to the host node of user A sending a path set up message to the host node of user B with the path set up message including an identifier of a tunnel already established through network N2, which is a tunnel identifier of the existing label switched path, as well as an identifier of the other nodes to be included in the new tunnel such as node S2, which is an extended tunnel identifier, with both identifiers specifying an explicit route and label switched path for a communications session between user A and user B).** Mauger further discloses defining a new path state and forwarding the message at each intermediate node **(See column 7 line 64 to column 8 line 23 and Figures 8 and 8A of Mauger for reference to using the connection request to update path information at each node and forwarding the connection request).** Mauger also discloses establishing a reservation state at the second node and returning the reservation state to the first node **(See column 7 line 64 to column 8 line 23 and Figures 8 and 8A of Mauger for reference to setting up the tunnel at the host node of user B and returning a connection reply message).** Mauger further discloses defining a new reservation at each intermediate node **(See column 7 line 64 to column 8 line 23 and Figures 8 and 8A of Mauger for reference to defining the**

Art Unit: 2616

new tunnel at each node). Mauger also discloses installing the reservation state with a label stack of the existing label switched path as the top label and the new label as the bottom label (See column 7 lines 1-23, column 7 line 64 to column 8 line 23, and Figures 5C, 8, and 8A of Mauger for reference to implementing a label stack with an existing tunnel encapsulated within a new tunnel). The intermediate nodes of Mauger must inherently store the tunnel identifier of the existing label switched path since the nodes must use the tunnel identifier to determine how to correctly forward the packet to the next node in the existing tunnel.

With respect to claim 10, Mauger discloses a method of setting up a communications session on a label switched path encapsulated within an existing label switched path between a first and second node via intermediate nodes with the first and second nodes being disposed at respective ends of the existing label switched path (See the abstract, column 7 lines 1-23, column 7 line 64 to column 8 line 23, and Figures 5B-C and 8 of Mauger for reference to a method of setting up MPLS tunnels through existing MPLS tunnels between host nodes of user A and user B, which are first and second nodes). Mauger also discloses at the first node, defining a new path state and sending a path set up message from the first node to the second node that incorporates an explicit route object containing a tunnel identifier of the existing label switched path and an extended tunnel identifier that together specify the label switched path for the communications session (See column 7 line 64 to column 8 line 23 and Figures 8 and 8A of Mauger for reference to the host node of user A sending a path set up message to the host node of user B with the path set up

Art Unit: 2616

message including an identifier of a tunnel already established through network N2, which is a tunnel identifier of the existing label switched path, as well as an identifier of the other nodes to be included in the new tunnel such as node S2, which is an extended tunnel identifier, with both identifiers specifying an explicit route and label switched path for a communications session between user A and user B). Mauger further discloses establishing a reservation state at the second node and returning the reservation state to the first node (See column 7 line 64 to column 8 line 23 and Figures 8 and 8A of Mauger for reference to setting up the tunnel at the host node of user B and returning a connection reply message). Mauger also discloses installing the reservation state with a label stack of the existing label switched path as the top label and the new label as the bottom label (See column 7 lines 1-23, column 7 line 64 to column 8 line 23, and Figures 5C, 8, and 8A of Mauger for reference to implementing a label stack with an existing tunnel encapsulated within a new tunnel). The intermediate nodes of Mauger must inherently store the tunnel identifier of the existing label switched path since the nodes must use the tunnel identifier to determine how to correctly forward the packet to the next node in the existing tunnel.

With respect to claims 2 and 13, Mauger discloses a session attribute object to add a session filter into an existing reservation (See column 7 line 64 to column 8 line 23 of Mauger for reference to the reservation sharing existing tunnel resources that are controlled by a service level agreement, which is a session filter).

With respect to claims 3 and 14, Mauger discloses a reservation established at each node (See column 7 line 64 to column 8 line 23 of Mauger for reference to establishing the connection request at each node listed by the designated transit list).

With respect to claims 4 and 15, Mauger discloses making a reservation only at either end of the tunnel (See column 7 line 64 to column 8 line 23 of Mauger for reference to establishing the connection request at only the endpoints of the tunnel through the network N2 as listed by the designated transit list).

With respect to claims 5 and 16, Mauger discloses establishing recursive label stacks on an as-needed basis (See column 7 lines 1-23 and Figures 5B-C for reference to establishing recursive label stack over the new connection only at nodes as needed).

With respect to claim 6, Mauger discloses setting up the label switched path within one or more further existing label switched paths (See column 7 lines 1-23 and Figure 5C of Mauger for reference to setting up the connection through multiple existing MPLS paths).

With respect to claim 7, Mauger discloses controlling the method with software in machine readable form on a storage medium (See column 8 lines 24-45 for reference to using processors and processing instructions to control the method).

Response to Arguments

4. Applicant's arguments filed 2/1/07 have been fully considered but they are not persuasive.

Regarding Applicant's argument that Mauger does not teach setting up/establishing a label switched path within an existing label switched path, the Examiner respectfully disagrees. Applicant points out that Mauger teaches user tunnels through existing engineering tunnels. Applicant also argues that the engineering tunnel as taught by Mauger is not a label switched path; however, Mauger does teach that the engineering tunnels are tunnels through an MPLS network meaning the tunnels do form an existing label switched path as claimed (See column 3 line 53 to column 4 line 6 of Mauger for reference to engineering tunnels being tunnels through an MPLS network). Therefore, Mauger does disclose setting up or establishing a label switched path (the user tunnel of Mauger) within an existing label switched path (the engineering tunnel of Mauger), as claimed. Applicant also argues that the claims defining the present invention implicitly require that the label switched path established within the existing label switched path is the same type of path as the existing label switched path; however, the Examiner respectfully disagrees with this view of the current claims. None of the current claims limit the label switch path encapsulated within an existing label switched path to be the same type of path as the existing label switched path.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jem



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600